Ayush Saha

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EDUCATION

MCKV Institute of Engineering	**GPA: 9.28/10**
B.Tech in Computer Science and Engineering | MAKAUT, July 2022 – June 2026	*West Bengal, India*
Dum Dum Kishore Bharati High School	**Percentage: 88.88%**
WBCHSE (Class XII), 2022	*West Bengal, India*

TECHNICAL SKILLS

Programming Languages: Python, Java, C, C++, JavaScript, SQL
Machine Learning / Deep Learning: Scikit-learn, TensorFlow, Keras, PyTorch, NLP
Computer Vision: OpenCV, Pillow
Cloud & DevOps: AWS, Oracle Cloud, GitHub, Docker
Data Visualization & Analysis: Pandas, NumPy, Matplotlib, Seaborn
Soft Skills: Team Leadership, Problem-Solving, Communication Skills, Time Management, Presentation Skills

PROJECTS

Medical Imaging for Skin Cancer Prediction — Ongoing
Collaboration with Jadavpur University

- Built CNN model to detect skin cancer from dermatoscopic images.
- Worked with Jadavpur University mentors for evaluation and validation.
- Aiming to improve early detection and publish results in AI research.

Maternal Health Risk Prediction AI ⚪ — Aug 2024 – Dec 2024

- Built ML model to predict maternal health risks from clinical data.
- Performed EDA, feature selection, and classification with high accuracy.
- Delivered clean, deployment-ready code.

Robust Face Recognition & Gender Classification ⚪ — June 2025 – July 2025

- Designed deep learning models to perform face recognition and gender classification in challenging conditions such as fog, blur, and low light.
- Achieved 93.6% accuracy using EfficientNetV2B3 + LSTM for gender classification and 97.66% Top-1 Accuracy with a Siamese network for face recognition.
- Leveraged transfer learning, dynamic data pairing, and Google Drive integration for scalable hosting and real-time usability.

Traffic Sign Detection ⚪ | CNN, TensorFlow, Flask

- Built and trained a CNN model on the GTSRB dataset for real-time traffic sign classification with high accuracy.
- Deployed the model using Flask for web-based predictions.
- Applied data preprocessing and augmentation techniques to improve model performance.

EXPERIENCE

Machine Learning Intern — Aug 2024 – Dec 2024
Infosys Springboard (Remote)

- Hands-on industry training platform in software development and emerging technologies.
- Designed machine learning models for classification and prediction.

Artificial Intelligence Intern — Oct 2024 – Dec 2024
EDUNET x Microsoft x AICTE

- Developed AI solutions for enterprise applications.
- Collaborated on integrating AI components with SAP systems.

CERTIFICATIONS & ACHIEVEMENTS

Oracle Cloud Infrastructure 2025 Certified AI Foundations Associate, Oracle — June 2025

Deep Learning Specialization, DeepLearning.AI (Coursera) — 2025

Machine Learning, Stanford Online (Coursera) — 2024

Joy of Computing using Python, NPTEL (IIT Ropar) — 2025

Programming in Java, NPTEL (IIT Kharagpur) — 2025

Career Essentials in Generative AI — 2024

Data Visualisation: Empowering Business with Effective Insights, Tata — Virtual Experience Program via Forage, 2024

EXTRACURRICULAR ACTIVITIES & LEADERSHIP

Team Leader, Final Year Project

Leader, 2 Internal Hackathons

Represented college in Smart India Hackathon 2023

PUBLICATIONS

Skin Lesion Classification using CNNs.
Under review for submission at International Conference on Medical Imaging and AI (2025).
Focused on improving diagnostic accuracy through advanced deep learning techniques; collaborated on dataset preparation, model training, and evaluation.

Real-time Gesture Recognition Models for Accessibility
Draft in preparation for submission to IEEE SMC.
Designed and implemented models for accurate, low-latency gesture detection across multiple sign languages (ASL, ISL, BdSL, ArSL), and worked on integrating accessibility features to enhance user interaction.

LANGUAGES & INTERESTS

Languages: English (Fluent), Hindi (Fluent), Bengali (Native)

Interests: AI Research, Hackathons, Open Source, Writing ML Blogs, Cricket